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<151> 2000-10-10

<151> 2001-03-14

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Ser	Thr	Phe	Pro	Gln	Ser	Ala	Ala	Ile	Cys	Gly	Leu	Arg	His	Glu	Val		
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Ser	Tyr	Ser	Val	Glu	Lys	Val	Gly	Cys	Glu	Val	Pro	Ala	Thr	Ile	Thr		
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Asn	Ser	Glu	Asp	Ala	Phe	Ser	Pro	Gly	Ile	Lys	Gln	Pro	Glu	Ala	Pro	
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Ser	Tyr	Ser	Val	Glu	Lys	Val	Gly	Cys	Glu	Val	Pro	Ala	Thr	Ile	Thr	
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Val	Glu	Leu	Leu	Val	Ser	Gly	Ser	Leu	Glu	Gly	Phe	Glu	Ser	Val	Leu	
20				25				30								
gac	tgg	ctg	ctg	tcc	tgg	gag	gtc	ctc	tcc	tgg	gag	gac	tac	gag	ggc	144
Asp	Trp	Leu	Leu	Ser	Trp	Glu	Val	Leu	Ser	Trp	Glu	Asp	Tyr	Glu	Gly	
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Phe	His	Leu	Leu	Gly	Gln	Pro	Leu	Ser	His	Leu	Ala	Arg	Arg	Leu	Leu	
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Ala Ala Gln Glu Ala Gln Ala Asp Ser Gln Ser Pro Lys Leu His Gly	
85 90 95	
tgc tgg gac ccc cac tcg ctc cac cca gcc cga gac ctg cag agt cac	336
Cys Trp Asp Pro His Ser Leu His Pro Ala Arg Asp Leu Gln Ser His	
100 105 110	
cgg cca gcc att gtc agg agg ctc cac agc cat gtg gag aac atg ctg	384
Arg Pro Ala Ile Val Arg Arg Leu His Ser His Val Glu Asn Met Leu	
115 120 125	
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Asp Leu Ala Trp Glu Arg Gly Phe Val Ser Gln Tyr Glu Cys Asp Glu	
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Ile Arg Leu Pro Ile Phe Thr Pro Ser Gln Arg Ala Arg Arg Leu Leu	
145 150 155 160	
gat ctt gcc acg gtg aaa gcg aat gga ttg gct gcc ttc ctt cta caa	528
Asp Leu Ala Thr Val Lys Ala Asn Gly Leu Ala Ala Phe Leu Leu Gln	
165 170 175	
cat gtt cag gaa tta cca gtc cca ttg gcc ctg cct ttg gaa gct gcc	576
His Val Gln Glu Leu Pro Val Pro Leu Ala Leu Pro Leu Glu Ala Ala	
180 185 190	
aca tgc aag aag tat atg gcc aag ctg agg acc acg gtg tct gct cag	624
Thr Cys Lys Lys Tyr Met Ala Lys Leu Arg Thr Thr Val Ser Ala Gln	
195 200 205	
tct cgc ttc ctc agt acc tat gat gga gca gag acg ctc tgc ctg gag	672
Ser Arg Phe Leu Ser Thr Tyr Asp Gly Ala Glu Thr Leu Cys Leu Glu	
210 215 220	
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225 230 235 240	
gct gga ccc ccg cag aag agc cca gcc acc ctg ggc ctg gag gag ctc	768
Ala Gly Pro Pro Gln Lys Ser Pro Ala Thr Leu Gly Leu Glu Glu Leu	
245 250 255	
ttc agc acc cct ggc cac ctc aat gac gat gcg gac act gtg ctg gtg	816
Phe Ser Thr Pro Gly His Leu Asn Asp Asp Ala Asp Thr Val Leu Val	
260 265 270	
gtg ggt gag gcg ggc agt ggc aag agc acg ctc ctg cag cgg ctg cac	864

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Leu	Leu	Trp	Ala	Ala	Gly	Gln	Asp	Phe	Gln	Glu	Phe	Leu	Phe	Val	Phe	
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cca	ttc	agc	tgc	cgg	cag	ctg	cag	tgc	atg	gcc	aaa	cca	ctc	tct	gtg	960
Pro	Phe	Ser	Cys	Arg	Gln	Leu	Gln	Cys	Met	Ala	Lys	Pro	Leu	Ser	Val	
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cgg	act	cta	ctc	ttt	gag	cac	tgc	tgt	tgg	cct	gat	gtt	ggc	caa	gaa	1008
Arg	Thr	Leu	Leu	Phe	Glu	His	Cys	Cys	Trp	Pro	Asp	Val	Gly	Gln	Glu	
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gac	atc	ttc	cag	tta	ctc	ctt	gac	cac	cct	gac	cgt	gtc	ctg	tta	acc	1056
Asp	Ile	Phe	Gln	Leu	Leu	Leu	Asp	His	Pro	Asp	Arg	Val	Leu	Leu	Thr	
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Phe	Asp	Gly	Phe	Asp	Glu	Phe	Lys	Phe	Arg	Phe	Thr	Asp	Arg	Glu	Arg	
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cac	tgc	tcc	ccg	acc	gac	ccc	acc	tct	gtc	cag	acc	ctg	ctc	ttc	aac	1152
His	Cys	Ser	Pro	Thr	Asp	Pro	Thr	Ser	Val	Gln	Thr	Leu	Leu	Phe	Asn	
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Leu	Leu	Gln	Gly	Asn	Leu	Leu	Lys	Asn	Ala	Arg	Lys	Val	Val	Thr	Ser	
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cgt	ccg	gcc	gct	gtg	tgc	gcg	ttc	ctc	agg	aag	tac	atc	cgc	acc	gag	1248
Arg	Pro	Ala	Ala	Val	Ser	Ala	Phe	Leu	Arg	Lys	Tyr	Ile	Arg	Thr	Glu	
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Phe	Asn	Leu	Lys	Gly	Phe	Ser	Glu	Gln	Gly	Ile	Glu	Leu	Tyr	Leu	Arg	
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Lys	Arg	His	His	Glu	Pro	Gly	Val	Ala	Asp	Arg	Leu	Ile	Arg	Leu	Leu	
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Gln	Glu	Thr	Ser	Ala	Leu	His	Gly	Leu	Cys	His	Leu	Pro	Val	Phe	Ser	
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Trp	Met	Val	Ser	Lys	Cys	His	Gln	Glu	Leu	Leu	Leu	Gln	Glu	Gly	Gly	
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Leu Leu His Ala Thr Pro Pro Asp Ser Ala Ser	Gln Gly Leu Gly Pro		
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Ser Leu Leu Arg Gly Arg Leu Pro Thr Leu Leu	His Leu Gly Arg Leu		
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Ala Leu Trp Gly Leu Gly Met Cys Cys Tyr Val	Phe Ser Ala Gln Gln		
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CCDS: T34960

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Asp	Leu	Ala	Thr	Val	Lys	Ala	Asn	Gly	Leu	Ala	Ala	Phe	Leu	Leu	Gln	
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His	Val	Gln	Glu	Leu	Pro	Val	Pro	Leu	Ala	Leu	Pro	Leu	Glu	Ala	Ala	
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Gly Ala Gln Ala Cys Gln Ile Cys Ile Thr Tyr Ile Cys Glu Glu Asp
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Phe	Val	Phe	Phe	Leu	Arg	Leu	Ser	Arg	Ala	Gln	Gly	Gly	Leu	Phe	Glu	
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Thr	Leu	Cys	Asp	Gln	Leu	Leu	Asp	Ile	Pro	Gly	Thr	Ile	Arg	Lys	Gln	
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Thr	Phe	Met	Ala	Met	Leu	Leu	Lys	Leu	Arg	Gln	Arg	Val	Leu	Phe	Leu	
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Cys Lys Asn Ile Tyr Ser Leu Met Val Glu Ala Ser Pro Leu Thr Ile
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Ser	Cys	Asn	Leu	Phe	Leu	Lys	Ser	Leu	Lys	Glu	Trp	Asn	Tyr	Pro	Leu		
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Phe	Gln	Asp	Leu	Asn	Gly	Gln	Ser	Leu	Phe	His	Gln	Thr	Ser	Glu	Gly		
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TC350" T24350

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Leu	Gln	Ser	Pro	Cys	Ile	Ile	Glu	Gly	Glu	Ser	Gly	Lys	Gly	Lys	Ser
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Ala	Gln	Ala	Leu	Ile	Arg	Glu	Val	Leu	Ile	Lys	Glu	Leu	Ala	Glu	Gly
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Leu	Leu	Leu	Gln	Ile	Gln	Lys	Ser	Arg	Cys	Leu	Arg	Asn	Leu	Met	Lys
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Val	Phe	Ser	His	Lys	Phe	Asp	Phe	Glu	Leu	Gln	Asp	Val	Ser	Ser	Val
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Ser	Asp	Ile	Thr	Ser	Thr	Tyr	Ser	Ser	Leu	Leu	Arg	Tyr	Thr	Cys	Gly
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Trp	Arg	Gln	Glu	Ser	Leu	Gln	Ser	Val	Lys	Asn	Thr	Thr	Glu	Gln	Glu

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Gln	Glu	Phe	Arg	Thr	Leu	Glu	Val	Thr	Leu	Arg	Asp	Phe	Ser	Lys	Leu
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Leu	Thr	Ala	Leu	Met	Leu	Pro	Trp	Gly	Cys	Asp	Val	Gln	Gly	Ser	Leu
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Ile His	Met Ile	Leu Lys	Lys Gly	Ser Glu	Ser Cys	Asn Leu	Phe Leu	
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Gln Ser	Gly Leu	Thr Asp	Ser Leu	Gly Asn	Leu Lys	Asn Leu	Thr Lys	
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Leu	Ser	Ala	Asn	Ala	Val	Lys	Ile	Leu	Ala	Gln	Asn	Leu	His	Asn	Leu	
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gtc	aaa	ctg	agc	att	ctt	gat	tta	tca	gaa	aat	tac	ctg	gaa	aaa	gat	870
Val	Lys	Leu	Ser	Ile	Leu	Asp	Leu	Ser	Glu	Asn	Tyr	Leu	Glu	Lys	Asp	
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Gly	Asn	Glu	Ala	Leu	His	Glu	Leu	Ile	Asp	Arg	Met	Asn	Val	Leu	Glu	
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Gln	Leu	Thr	Ala	Leu	Met	Leu	Pro	Trp	Gly	Cys	Asp	Val	Gln	Gly	Ser	
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ctg	agc	agc	ctg	ttg	aaa	cat	ttg	gag	gag	gtc	cca	caa	ctc	gtc	aag	1014
Leu	Ser	Ser	Leu	Leu	Lys	His	Leu	Glu	Glu	Val	Pro	Gln	Leu	Val	Lys	
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ctt	ggg	ttg	aaa	aac	tgg	aga	ctc	aca	gat	aca	gag	att	aga	att	tta	1062
Leu	Gly	Leu	Lys	Asn	Trp	Arg	Leu	Thr	Asp	Thr	Glu	Ile	Arg	Ile	Leu	
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ggt	gca	ttt	ttt	gga	aag	aac	cct	ctg	aaa	aac	ttc	cag	cag	ttg	aat	1110
Gly	Ala	Phe	Phe	Gly	Lys	Asn	Pro	Leu	Lys	Asn	Phe	Gln	Gln	Leu	Asn	
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Gln	Leu	Val	Ser	Cys	Cys	Leu	Ser	Ala	Asn	Ala	Val	Lys	Ile	Leu	Ala
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Gln	Asn	Leu	His	Asn	Leu	Val	Lys	Leu	Ser	Ile	Leu	Asp	Leu	Ser	Glu
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Asn	Tyr	Leu	Glu	Lys	Asp	Gly	Asn	Glu	Ala	Leu	His	Glu	Leu	Ile	Asp
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 Asn Phe Gln Gln Leu Asn Leu Ala Gly Asn Arg Val Ser Ser Asp Gly
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 Trp Leu Ala Phe Met Gly Val Phe Glu Asn Leu Lys Gln Leu Val Phe
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 Met Asn Phe Ile Lys Asp
 1 5
 aat agc cga gcc ctt att caa aga atg gga atg act gtt ata aag caa 342
 Asn Ser Arg Ala Leu Ile Gln Arg Met Gly Met Thr Val Ile Lys Gln
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 Ile Thr Asp Asp Leu Phe Val Trp Asn Val Leu Asn Arg Glu Glu Val
 25 30 35
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 Asn Ile Ile Cys Cys Glu Lys Val Glu Gln Asp Ala Ala Arg Gly Ile
 40 45 50
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 Ile His Met Ile Leu Lys Lys Gly Ser Glu Ser Cys Asn Leu Phe Leu
 55 60 65 70
 aaa tcc ctt aag gag tgg aac tat cct cta ttt cag gac ttg aat gga 534
 Lys Ser Leu Lys Glu Trp Asn Tyr Pro Leu Phe Gln Asp Leu Asn Gly
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578

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Ile	His	Met	Ile	Leu	Lys	Lys	Gly	Ser	Glu	Ser	Cys	Asn	Leu	Phe	Leu		
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Lys	Ser	Leu	Lys	Glu	Trp	Asn	Tyr	Pro	Leu	Phe	Gln	Asp	Leu	Asn	Gly		
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caa	agt	ctt	ttt	cat	cag	aca	tca	gaa	gga	gac	ttg	gac	gat	ttg	gct	582	
Gln	Ser	Leu	Phe	His	Gln	Thr	Ser	Glu	Gly	Asp	Leu	Asp	Asp	Leu	Ala		
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Gln	Asp	Leu	Lys	Asp	Leu	Tyr	His	Thr	Pro	Ser	Phe	Leu	Asn	Phe	Tyr		
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ccc	ctt	ggt	gaa	gat	att	gac	att	att	ttt	aac	ttg	aaa	agc	acc	ttc	678	
Pro	Leu	Gly	Glu	Asp	Ile	Asp	Ile	Ile	Phe	Asn	Leu	Lys	Ser	Thr	Phe		
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aca	gaa	cct	gtc	ctg	tgg	agg	aag	gac	caa	cac	cat	cac	cgc	gtg	gag	726	
Thr	Glu	Pro	Val	Leu	Trp	Arg	Lys	Asp	Gln	His	His	His	Arg	Val	Glu		
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cag	ctg	acc	cta	gtt	tta	tagcatcttc	tacctgcccg	ggcg								768	
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Val	Gly	Glu	Ala	Gly	Ser	Gly	Lys	Ser	Thr	Leu	Leu	Gln	Arg	Leu	His	
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Leu	Leu	Trp	Ala	Ala	Gly	Gln	Asp	Phe	Gln	Glu	Phe	Leu	Phe	Val	Phe	
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Pro 305	Phe	Ser	Cys	Arg	Gln	Leu	Gln	Cys	Met	Ala	Lys	Pro	Leu	Ser	Val	
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Arg	Thr	Leu	Leu	Phe	Glu	His	Cys	Cys	Trp	Pro	Asp	Val	Gly	Gln	Glu	
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Leu 385	Leu	Gln	Gly	Asn	Leu	Leu	Lys	Asn	Ala	Arg	Lys	Val	Val	Thr	Ser	
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500 505 510
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Ala Leu Trp Gly Leu Gly Met Cys Cys Tyr Val Phe Ser Ala Gln Gln
530 535 540
Leu Gln Ala Ala Gln Val Ser Pro Asp Asp Ile Ser Leu Gly Phe Leu
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Val Arg Ala Lys Gly Val Val Pro Gly Ser Thr Ala Pro Leu Glu Phe
565 570 575
Leu His Ile Thr Phe Gln Cys Phe Phe Ala Ala Phe Tyr Leu Ala Leu
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Ser Ala Asp Val Pro Pro Ala Leu Leu Arg His Leu Phe Asn Cys Gly
595 600 605
Arg Pro Gly Asn Ser Pro Met Ala Arg Leu Leu Pro Thr Met Cys Ile
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Gln Ala Ser Glu Gly Lys Asp Ser Ser Val Ala Ala Leu Leu Gln Lys
625 630 635 640
Ala Glu Pro His Asn Leu Gln Ile Thr Ala Ala Phe Leu Ala Gly Leu
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660 665 670
Lys Ala Leu Leu Arg Arg Gln Ala Cys Ala Arg Trp Cys Leu Ala Arg
675 680 685
Ser Leu Arg Lys His Phe His Ser Ile Pro Pro Ala Ala Pro Gly Glu
690 695 700
Ala Lys Ser Val His Ala Met Pro Gly Phe Ile Trp Leu Ile Arg Ser
705 710 715 720
Leu Tyr Glu Met Gln Glu Glu Arg Leu Ala Arg Lys Ala Ala Arg Gly
725 730 735
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740 745 750
Glu Cys Ala Ala Leu Ala Phe Val Leu Gln His Leu Arg Arg Pro Val
755 760 765
Ala Leu Gln Leu Asp Tyr Asn Ser Val Gly Asp Ile Gly Val Glu Gln
770 775 780
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785 790 795 800
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850 855 860
Ala Leu Ala Glu Ala Leu Gly Asp His Gln Ser Leu Arg Trp Leu Ser
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Glu Ile Leu Gln His Asp Pro Asp Ser Ile Leu Asp Thr Leu Thr Ser
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cgg agg ctg att tct gag gaa gag tat gag act ctg gag aat gtt aca   144
Arg Arg Leu Ile Ser Glu Glu Glu Tyr Glu Thr Leu Glu Asn Val Thr
      35             40             45

gat ctc ctg aag aaa agt cgg aag ctg tta att ttg gta cag aaa aag   192
Asp Leu Leu Lys Lys Ser Arg Lys Leu Leu Ile Leu Val Gln Lys Lys
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Leu	Leu	Val	Ser	Gly	Ser	Leu	Glu	Gly	Phe	Glu	Ser	Val	Leu	Asp	Trp	
20				25				30								
ctg	ctg	tcc	tgg	gag	gtc	ctc	tcc	tgg	gag	gac	tac	gag	ggc	ttc	cac	144
Leu	Leu	Ser	Trp	Glu	Val	Leu	Ser	Trp	Glu	Asp	Tyr	Glu	Gly	Phe	His	
35				40				45								
ctc	ctg	ggc	cag	cct	ctc	tcc	cac	ttg	gcc	agg	cgc	ctt	ctg	gac	acc	192
Leu	Leu	Gly	Gln	Pro	Leu	Ser	His	Leu	Ala	Arg	Arg	Leu	Leu	Asp	Thr	
50				55				60								
gtc	tgg	aat	aag	ggt	act	tgg	gcc	tgt	cag	aag	ctc					228
Val	Trp	Asn	Lys	Gly	Thr	Trp	Ala	Cys	Gln	Lys	Leu					
65		70				75										

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Asp	Asp	Ala	Asp	Thr	Val	Leu	Val	Val	Gly	Glu	Ala	Gly	Ser	Gly	Lys		
1				5				10				15					
agc	acg	ctc	ctg	cag	cgg	ctg	cac	ttg	ctg	tgg	gct	gca	ggg	caa	gac	96	
Ser	Thr	Leu	Leu	Gln	Arg	Leu	His	Leu	Leu	Trp	Ala	Ala	Gly	Gln	Asp		
20				25				30									
ttc	cag	gaa	ttt	ctc	ttt	gtc	ttc	cca	ttc	agc	tgc	cgg	cag	ctg	cag	144	
Phe	Gln	Glu	Phe	Leu	Phe	Val	Phe	Pro	Phe	Ser	Cys	Arg	Gln	Leu	Gln		
35				40				45									
tgc	atg	gcc	aaa	cca	ctc	tct	gtg	cgg	act	cta	ctc	ttt	gag	cac	tgc	192	
Cys	Met	Ala	Lys	Pro	Leu	Ser	Val	Arg	Thr	Leu	Leu	Phe	Glu	His	Cys		
50				55				60									
tgt	tgg	cct	gat	gtt	ggt	caa	gaa	gac	atc	ttc	cag	tta	ctc	ctt	gac	240	
Cys	Trp	Pro	Asp	Val	Gly	Gln	Glu	Asp	Ile	Phe	Gln	Leu	Leu	Leu	Asp		
65				70				75				80					
cac	cct	gac	cgt	gtc	ctg	tta	acc	ttt	gat	ggc	ttt	gac	gag	ttc	aag	288	
His	Pro	Asp	Arg	Val	Leu	Leu	Thr	Phe	Asp	Gly	Phe	Asp	Glu	Phe	Lys		
85				90				95									

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Phe Arg Phe Thr Asp Arg Glu Arg His Cys Ser Pro Thr Asp Pro Thr	
100 105 110	
tct gtc cag acc ctg ctc ttc aac ctt ctg cag ggc aac ctg ctg aag	384
Ser Val Gln Thr Leu Leu Phe Asn Leu Leu Gln Gly Asn Leu Leu Lys	
115 120 125	
aat gcc cgc aag gtg gtg acc agc cgt ccg gcc gct gtg tgc gcg ttc	432
Asn Ala Arg Lys Val Val Thr Ser Arg Pro Ala Ala Val Ser Ala Phe	
130 135 140	
ctc agg aag tac atc cgc acc gag ttc aac ctc aag ggc ttc tct gaa	480
Leu Arg Lys Tyr Ile Arg Thr Glu Phe Asn Leu Lys Gly Phe Ser Glu	
145 150 155 160	
cag ggc atc gag ctg tac ctg agg aag cgc cat cat gag ccc ggg gtg	528
Gln Gly Ile Glu Leu Tyr Leu Arg Lys Arg His His Glu Pro Gly Val	
165 170 175	
gcg gac cgc ctc atc cgc ctg ctc caa gag acc tca gcc ctg cac ggt	576
Ala Asp Arg Leu Ile Arg Leu Leu Gln Glu Thr Ser Ala Leu His Gly	
180 185 190	
ttg tgc cac ctg cct gtc ttc tca tgg atg gtg tcc aaa tgc cac cag	624
Leu Cys His Leu Pro Val Phe Ser Trp Met Val Ser Lys Cys His Gln	
195 200 205	
gaa ctg ttg ctg cag gag ggg ggg tcc cca aag acc act aca gat atg	672
Glu Leu Leu Leu Gln Glu Gly Gly Ser Pro Lys Thr Thr Thr Asp Met	
210 215 220	
tac ctg ctg att ctg cag cat ttt ctg ctg cat gcc acc ccc cca gac	720
Tyr Leu Leu Ile Leu Gln His Phe Leu Leu His Ala Thr Pro Pro Asp	
225 230 235 240	
tca gct tcc caa ggt ctg gga ccc agt ctt ctt cgg ggc cgc ctc ccc	768
Ser Ala Ser Gln Gly Leu Gly Pro Ser Leu Leu Arg Gly Arg Leu Pro	
245 250 255	
acc ctc ctg cac ctg ggc aga ctg gct ctg tgg ggc ctg ggc atg tgc	816
Thr Leu Leu His Leu Gly Arg Leu Ala Leu Trp Gly Leu Gly Met Cys	
260 265 270	
tgc tac gtg ttc tca gcc cag cag ctc cag gca gca cag gtc agc cct	864
Cys Tyr Val Phe Ser Ala Gln Gln Leu Gln Ala Ala Gln Val Ser Pro	
275 280 285	
gat gac att tct ctt ggc ttc ctg	888
Asp Asp Ile Ser Leu Gly Phe Leu	
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<210> 174
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 <212> PRT
 <213> Homo sapiens

<400> 174

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		20						25					30		
Phe	Gln	Glu	Phe	Leu	Phe	Val	Phe	Pro	Phe	Ser	Cys	Arg	Gln	Leu	Gln
		35					40					45			
Cys	Met	Ala	Lys	Pro	Leu	Ser	Val	Arg	Thr	Leu	Leu	Phe	Glu	His	Cys
	50					55					60				
Cys	Trp	Pro	Asp	Val	Gly	Gln	Glu	Asp	Ile	Phe	Gln	Leu	Leu	Leu	Asp
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His	Pro	Asp	Arg	Val	Leu	Leu	Thr	Phe	Asp	Gly	Phe	Asp	Glu	Phe	Lys
			85						90					95	
Phe	Arg	Phe	Thr	Asp	Arg	Glu	Arg	His	Cys	Ser	Pro	Thr	Asp	Pro	Thr
			100					105					110		
Ser	Val	Gln	Thr	Leu	Leu	Phe	Asn	Leu	Leu	Gln	Gly	Asn	Leu	Leu	Lys
		115					120					125			
Asn	Ala	Arg	Lys	Val	Val	Thr	Ser	Arg	Pro	Ala	Ala	Val	Ser	Ala	Phe
	130					135					140				
Leu	Arg	Lys	Tyr	Ile	Arg	Thr	Glu	Phe	Asn	Leu	Lys	Gly	Phe	Ser	Glu
145					150					155					160
Gln	Gly	Ile	Glu	Leu	Tyr	Leu	Arg	Lys	Arg	His	His	Glu	Pro	Gly	Val
			165						170					175	
Ala	Asp	Arg	Leu	Ile	Arg	Leu	Leu	Gln	Glu	Thr	Ser	Ala	Leu	His	Gly
			180					185					190		
Leu	Cys	His	Leu	Pro	Val	Phe	Ser	Trp	Met	Val	Ser	Lys	Cys	His	Gln
		195					200					205			
Glu	Leu	Leu	Leu	Gln	Glu	Gly	Gly	Ser	Pro	Lys	Thr	Thr	Thr	Asp	Met
	210					215					220				
Tyr	Leu	Leu	Ile	Leu	Gln	His	Phe	Leu	Leu	His	Ala	Thr	Pro	Pro	Asp
225					230					235					240
Ser	Ala	Ser	Gln	Gly	Leu	Gly	Pro	Ser	Leu	Leu	Arg	Gly	Arg	Leu	Pro
			245						250					255	
Thr	Leu	Leu	His	Leu	Gly	Arg	Leu	Ala	Leu	Trp	Gly	Leu	Gly	Met	Cys
			260					265					270		
Cys	Tyr	Val	Phe	Ser	Ala	Gln	Gln	Leu	Gln	Ala	Ala	Gln	Val	Ser	Pro
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Asp	Asp	Ile	Ser	Leu	Gly	Phe	Leu								
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<220>
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gcc Ala	ctg Leu	cac His	ggg Gly 20	ttg Leu	tgc Cys	cac His	ctg Leu	cct Pro 25	gtc Val	ttc Phe	tca Ser	tgg Trp	atg Met 30	gtg Val	tcc Ser	96
aaa Lys	tgc Cys	cac His 35	cag Gln	gaa Glu	ctg Leu	ttg Leu	ctg Leu 40	cag Gln	gag Glu	ggg Gly	ggg Gly	tcc Ser 45	cca Pro	aag Lys	acc Thr	144
act Thr	aca Thr 50	gat Asp	atg Met	tac Tyr	ctg Leu	ctg Leu 55	att Ile	ctg Leu	cag Gln	cat His	ttt Phe 60	ctg Leu	ctg Leu	cat His	gcc Ala	192
acc Thr 65	ccc Pro	cca Pro	gac Asp	tca Ser	gct Ala	tcc Ser	caa Gln	ggt Gly	ctg Leu	gga Gly	ccc Pro	agt Ser	ctt Leu	ctt Leu	cgg Arg 80	240
ggc Gly	cgc Arg	ctc Leu	ccc Pro	acc Thr 85	ctc Leu	ctg Leu	cac His	ctg Leu 90	ggc Gly	aga Arg	ctg Leu	gct Ala	ctg Leu	tgg Trp 95	ggc Gly	288
ctg Leu	ggc Gly	atg Met	tgc Cys 100	tgc Cys	tac Tyr	gtg Val	ttc Phe	tca Ser 105	gcc Ala	cag Gln	cag Gln	ctc Leu	cag Gln	gca Ala	gca Ala	336
cag Gln	gtc Val	agc Ser 115	cct Pro	gat Asp	gac Asp	att Ile	tct Ser	ctt Leu 120	ggc Gly	ttc Phe	ctg Leu	gtg Val	cgt Arg	gcc Ala	aaa Lys	384
ggg Gly	gtc Val 130	gtg Val	cca Pro	ggg Gly	agt Ser	acg Thr 135	gcg Ala	ccc Pro	ctg Leu	gaa Glu	ttc Phe 140	ctt Leu	cac His	atc Ile	act Thr	432
ttc Phe 145	cag Gln	tgc Cys	ttc Phe	ttt Phe 150	gcc Ala	gcg Ala	ttc Phe	tac Tyr	ctg Leu	gca Ala 155	ctc Leu	agt Ser	gct Ala	gat Asp	gtg Val 160	480
cca Pro	cca Pro	gct Ala	ttg Leu	ctc Leu 165	aga Arg	cac His	ctc Leu	ttc Phe	aat Asn 170	tgt Cys	ggc Gly	agg Arg	cca Pro	ggc Gly 175	aac Asn	528
tca Ser	cca Pro	atg Met	gcc Ala 180	agg Arg	ctc Leu	ctg Leu	ccc Pro	acg Thr 185	atg Met	tgc Cys	atc Ile	cag Gln	gcc Ala 190	tcg Ser	gag Glu	576
gga Gly	aag Lys	gac Asp	agc Ser	agc Ser	gtg Val	gca Ala	gct Ala	ttg Leu	ctg Leu	cag Gln	aag Lys	gcc Ala	gag Glu	cgg Pro	cac His	624

195					200					205						
aac	ctt	cag	atc	aca	gca	gcc	ttc	ctg	gca	ggg	ctg	ttg	tcc	cgg	gag	672
Asn	Leu	Gln	Ile	Thr	Ala	Ala	Phe	Leu	Ala	Gly	Leu	Leu	Ser	Arg	Glu	
210					215					220						
cac	tgg	ggc	ctg	ctg	gct	gag	tgc	cag	aca	tct	gag	aag	gcc	ctg	ctc	720
His	Trp	Gly	Leu	Leu	Ala	Glu	Cys	Gln	Thr	Ser	Glu	Lys	Ala	Leu	Leu	
225					230					235					240	
cgg	cgc	cag	gcc	tgt	gcc	cgc	tgg	tgt	ctg	gcc	cgc	agc	ctc	cgc	aag	768
Arg	Arg	Gln	Ala	Cys	Ala	Arg	Trp	Cys	Leu	Ala	Arg	Ser	Leu	Arg	Lys	
245					250					255						
cac	ttc	cac	tcc	atc	ccg	cca	gct	gca	ccg	ggg	gag	gcc	aag	agc	gtg	816
His	Phe	His	Ser	Ile	Pro	Pro	Ala	Ala	Pro	Gly	Glu	Ala	Lys	Ser	Val	
260					265					270						
cat	gcc	atg	ccc	ggg	ttc	atc	tgg	ctc	atc	cgg	agc	ctg	tac	gag	atg	864
His	Ala	Met	Pro	Gly	Phe	Ile	Trp	Leu	Ile	Arg	Ser	Leu	Tyr	Glu	Met	
275					280					285						
cag	gag	gag	cgg	ctg	gct	cgg	aag	gct	gca	cgt	ggc	ctg	aat	gtt	ggg	912
Gln	Glu	Glu	Arg	Leu	Ala	Arg	Lys	Ala	Ala	Arg	Gly	Leu	Asn	Val	Gly	
290					295					300						
cac	ctc	aag	ttg	aca	ttt	tgc	agt	gtg	ggc	ccc	act	gag	tgt	gct	gcc	960
His	Leu	Lys	Leu	Thr	Phe	Cys	Ser	Val	Gly	Pro	Thr	Glu	Cys	Ala	Ala	
305					310					315					320	
ctg	gcc	ttt	gtg	ctg	cag	cac	ctc	cgg	cgg	ccc	gtg	gcc	ctg	cag	ctg	1008
Leu	Ala	Phe	Val	Leu	Gln	His	Leu	Arg	Arg	Pro	Val	Ala	Leu	Gln	Leu	
325					330					335						
gac	tac	aac	tct	gtg	ggt	gac	att	ggc	gtg	gag	cag	ctg	ctg	cct	tgc	1056
Asp	Tyr	Asn	Ser	Val	Gly	Asp	Ile	Gly	Val	Glu	Gln	Leu	Leu	Pro	Cys	
340					345					350						
ctt	ggt	gtc	tgc	aag	gct	ctg	tat	ttg	cgc	gat	aac	aat	atc	tca	gac	1104
Leu	Gly	Val	Cys	Lys	Ala	Leu	Tyr	Leu	Arg	Asp	Asn	Asn	Ile	Ser	Asp	
355					360					365						
cga	ggc	atc	tgc	aag	ctc	att	gaa	tgt	gct	ctt	cac	tgc	gag	caa	ttg	1152
Arg	Gly	Ile	Cys	Lys	Leu	Ile	Glu	Cys	Ala	Leu	His	Cys	Glu	Gln	Leu	
370					375					380						
cag	aag	tta	gcg	ctg	ggg	aat	aac	tac	atc	act	gcc	gcg	gga	gcc	caa	1200
Gln	Lys	Leu	Ala	Leu	Gly	Asn	Asn	Tyr	Ile	Thr	Ala	Ala	Gly	Ala	Gln	
385					390					395					400	
gtg	ctg	gcc														1209
Val	Leu	Ala														

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<400> 176

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			20					25					30		
Lys	Cys	His	Gln	Glu	Leu	Leu	Leu	Gln	Glu	Gly	Gly	Ser	Pro	Lys	Thr
		35					40					45			
Thr	Thr	Asp	Met	Tyr	Leu	Leu	Ile	Leu	Gln	His	Phe	Leu	Leu	His	Ala
	50					55					60				
Thr	Pro	Pro	Asp	Ser	Ala	Ser	Gln	Gly	Leu	Gly	Pro	Ser	Leu	Leu	Arg
65					70					75					80
Gly	Arg	Leu	Pro	Thr	Leu	Leu	His	Leu	Gly	Arg	Leu	Ala	Leu	Trp	Gly
				85					90					95	
Leu	Gly	Met	Cys	Tyr	Val	Phe	Ser	Ala	Gln	Gln	Leu	Gln	Ala	Ala	
			100					105				110			
Gln	Val	Ser	Pro	Asp	Asp	Ile	Ser	Leu	Gly	Phe	Leu	Val	Arg	Ala	Lys
			115					120				125			
Gly	Val	Val	Pro	Gly	Ser	Thr	Ala	Pro	Leu	Glu	Phe	Leu	His	Ile	Thr
			130				135					140			
Phe	Gln	Cys	Phe	Phe	Ala	Ala	Phe	Tyr	Leu	Ala	Leu	Ser	Ala	Asp	Val
145					150					155					160
Pro	Pro	Ala	Leu	Leu	Arg	His	Leu	Phe	Asn	Cys	Gly	Arg	Pro	Gly	Asn
				165					170					175	
Ser	Pro	Met	Ala	Arg	Leu	Leu	Pro	Thr	Met	Cys	Ile	Gln	Ala	Ser	Glu
			180					185					190		
Gly	Lys	Asp	Ser	Ser	Val	Ala	Ala	Leu	Leu	Gln	Lys	Ala	Glu	Pro	His
		195					200					205			
Asn	Leu	Gln	Ile	Thr	Ala	Ala	Phe	Leu	Ala	Gly	Leu	Leu	Ser	Arg	Glu
		210				215						220			
His	Trp	Gly	Leu	Leu	Ala	Glu	Cys	Gln	Thr	Ser	Glu	Lys	Ala	Leu	Leu
225					230					235					240
Arg	Arg	Gln	Ala	Cys	Ala	Arg	Trp	Cys	Leu	Ala	Arg	Ser	Leu	Arg	Lys
				245					250					255	
His	Phe	His	Ser	Ile	Pro	Pro	Ala	Ala	Pro	Gly	Glu	Ala	Lys	Ser	Val
			260					265					270		
His	Ala	Met	Pro	Gly	Phe	Ile	Trp	Leu	Ile	Arg	Ser	Leu	Tyr	Glu	Met
		275					280					285			
Gln	Glu	Glu	Arg	Leu	Ala	Arg	Lys	Ala	Ala	Arg	Gly	Leu	Asn	Val	Gly
		290					295				300				
His	Leu	Lys	Leu	Thr	Phe	Cys	Ser	Val	Gly	Pro	Thr	Glu	Cys	Ala	Ala
305					310					315					320
Leu	Ala	Phe	Val	Leu	Gln	His	Leu	Arg	Arg	Pro	Val	Ala	Leu	Gln	Leu
				325					330					335	
Asp	Tyr	Asn	Ser	Val	Gly	Asp	Ile	Gly	Val	Glu	Gln	Leu	Leu	Pro	Cys
			340					345					350		
Leu	Gly	Val	Cys	Lys	Ala	Leu	Tyr	Leu	Arg	Asp	Asn	Asn	Ile	Ser	Asp

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 Arg Gly Ile Cys Lys Leu Ile Glu Cys Ala Leu His Cys Glu Gln Leu
 370 375 380
 Gln Lys Leu Ala Leu Gly Asn Asn Tyr Ile Thr Ala Ala Gly Ala Gln
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 Val Leu Ala

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 atg act gtt ata aag caa atc aca gat gac cta ttt gta tgg aat gtt 96
 Met Thr Val Ile Lys Gln Ile Thr Asp Asp Leu Phe Val Trp Asn Val
 20 25 30

 ctg aat cgc gaa gaa gta aac atc att tgc tgc gag aag gtg gag cag 144
 Leu Asn Arg Glu Glu Val Asn Ile Ile Cys Cys Glu Lys Val Glu Gln
 35 40 45

 gat gct gct aga ggg atc att cac atg att ttg aaa aag ggt tca gag 192
 Asp Ala Ala Arg Gly Ile Ile His Met Ile Leu Lys Lys Gly Ser Glu
 50 55 60

 tcc tgt aac ctc ttt ctt aaa tcc ctt aag gag tgg aac tat cct cta 240
 Ser Cys Asn Leu Phe Leu Lys Ser Leu Lys Glu Trp Asn Tyr Pro Leu
 65 70 75 80

 ttt cag gac ttg aat gga caa 261
 Phe Gln Asp Leu Asn Gly Gln
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<210> 178
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				5						10		15					
act	ctg	ctg	cag	cgc	att	gcc	atg	ctc	tgg	ggc	tcc	gga	aag	tgc	aag	96	
Thr	Leu	Leu	Gln	Arg	Ile	Ala	Met	Leu	Trp	Gly	Ser	Gly	Lys	Cys	Lys		
				20						25		30					
gct	ctg	acc	aag	ttc	aaa	ttc	gtc	ttc	ttc	ctc	cgt	ctc	agc	agg	gcc	144	
Ala	Leu	Thr	Lys	Phe	Lys	Phe	Val	Phe	Phe	Leu	Arg	Leu	Ser	Arg	Ala		
				35						40		45					
cag	ggt	gga	ctt	ttt	gaa	acc	ctc	tgt	gat	caa	ctc	ctg	gat	ata	cct	192	
Gln	Gly	Gly	Leu	Phe	Glu	Thr	Leu	Cys	Asp	Gln	Leu	Leu	Asp	Ile	Pro		
				50						55		60					
ggc	aca	atc	agg	aag	cag	aca	ttc	atg	gcc	atg	ctg	ctg	aag	ctg	cgg	240	
Gly	Thr	Ile	Arg	Lys	Gln	Thr	Phe	Met	Ala	Met	Leu	Leu	Lys	Leu	Arg		
				65						70		75			80		
cag	agg	ggt	ctt	ttc	ctt	ctt	gat	ggc	tac	aat	gaa	ttc	aag	ccc	cag	288	
Gln	Arg	Val	Leu	Phe	Leu	Leu	Asp	Gly	Tyr	Asn	Glu	Phe	Lys	Pro	Gln		
				85						90		95					
aac	tgc	cca	gaa	atc	gaa	gcc	ctg	ata	aag	gaa	aac	cac	cgc	ttc	aag	336	
Asn	Cys	Pro	Glu	Ile	Glu	Ala	Leu	Ile	Lys	Glu	Asn	His	Arg	Phe	Lys		
				100						105		110					
aac	atg	gtc	atc	gtc	acc	act	acc	act	gag	tgc	ctg	agg	cac	ata	cgg	384	
Asn	Met	Val	Ile	Val	Thr	Thr	Thr	Thr	Glu	Cys	Leu	Arg	His	Ile	Arg		
				115						120		125					

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1 5 10 15

Thr Leu Leu Gln Arg Ile Ala Met Leu Trp Gly Ser Gly Lys Cys Lys
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 Ala Leu Thr Lys Phe Lys Phe Val Phe Phe Leu Arg Leu Ser Arg Ala
 35 40 45
 Gln Gly Gly Leu Phe Glu Thr Leu Cys Asp Gln Leu Leu Asp Ile Pro
 50 55 60
 Gly Thr Ile Arg Lys Gln Thr Phe Met Ala Met Leu Leu Lys Leu Arg
 65 70 75 80
 Gln Arg Val Leu Phe Leu Leu Asp Gly Tyr Asn Glu Phe Lys Pro Gln
 85 90 95
 Asn Cys Pro Glu Ile Glu Ala Leu Ile Lys Glu Asn His Arg Phe Lys
 100 105 110
 Asn Met Val Ile Val Thr Thr Thr Thr Glu Cys Leu Arg His Ile Arg
 115 120 125
 Gln Phe Gly Ala Leu Thr Ala Glu Val Gly Asp Met Thr Glu Asp Ser
 130 135 140
 Ala Gln Ala Leu Ile Arg Glu Val Leu Ile Lys Glu Leu Ala Glu Gly
 145 150 155 160
 Leu Leu Leu Gln Ile Gln Lys Ser Arg Cys Leu Arg Asn Leu Met Lys
 165 170 175
 Thr Pro Leu Phe Val Val Ile Thr Cys Ala Ile Gln Met Gly Glu Ser
 180 185 190
 Glu Phe His Ser His Thr Gln Thr Thr Leu Phe His Thr Phe Tyr Asp
 195 200 205
 Leu Leu Ile Gln Lys Asn Lys His Lys His Lys Gly Val Ala Ala Ser
 210 215 220
 Asp Phe Ile Arg Ser Leu Asp His Arg Gly Asp Leu Ala Leu Glu Gly
 225 230 235 240
 Val Phe Ser His Lys Phe Asp Phe Glu Leu Gln Asp Val Ser Ser Val
 245 250 255
 Asn Glu Asp Val Leu Leu Thr Thr Gly Leu Leu Cys Lys Tyr Thr Ala
 260 265 270
 Gln Arg Phe Lys Pro Lys Tyr Lys Phe Phe His Lys Ser Phe Gln Glu
 275 280 285
 Tyr Thr Ala Gly Arg Arg Leu Ser Ser
 290 295

<210> 181
 <211> 618
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)... (618)

<400> 181
 ggt aac ttg aag aac ctt aca aag ctc ata atg gat aac ata aag atg 48
 Gly Asn Leu Lys Asn Leu Thr Lys Leu Ile Met Asp Asn Ile Lys Met
 1 5 10 15
 aat gaa gaa gat gct ata aaa cta gct gaa ggc ctg aaa aac ctg aag 96

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<210> 182
<211> 206
<212> PRT
<213> Homo sapiens
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<400> 182
Gly Asn Leu Lys Asn Leu Thr Lys Leu Ile Met Asp Asn Ile Lys Met
1          5          10          15
Asn Glu Glu Asp Ala Ile Lys Leu Ala Glu Gly Leu Lys Asn Leu Lys
20          25          30
Lys Met Cys Leu Phe His Leu Thr His Leu Ser Asp Ile Gly Glu Gly
35          40          45
Met Asp Tyr Ile Val Lys Ser Leu Ser Ser Glu Pro Cys Asp Leu Glu
50          55          60
Glu Ile Gln Leu Val Ser Cys Cys Leu Ser Ala Asn Ala Val Lys Ile
65          70          75          80
Leu Ala Gln Asn Leu His Asn Leu Val Lys Leu Ser Ile Leu Asp Leu
85          90          95
Ser Glu Asn Tyr Leu Glu Lys Asp Gly Asn Glu Ala Leu His Glu Leu
100          105          110
Ile Asp Arg Met Asn Val Leu Glu Gln Leu Thr Ala Leu Met Leu Pro
115          120          125
Trp Gly Cys Asp Val Gln Gly Ser Leu Ser Ser Leu Leu Lys His Leu
130          135          140
Glu Glu Val Pro Gln Leu Val Lys Leu Gly Leu Lys Asn Trp Arg Leu
145          150          155          160
Thr Asp Thr Glu Ile Arg Ile Leu Gly Ala Phe Phe Gly Lys Asn Pro
165          170          175
Leu Lys Asn Phe Gln Gln Leu Asn Leu Ala Gly Asn Arg Val Ser Ser
180          185          190
Asp Gly Trp Leu Ala Phe Met Gly Val Phe Glu Asn Leu Lys
195          200          205

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<210> 183
<211> 165
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(165)

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<400> 183
acc tac att ccc agc agg gct gta tct ttg ttc ttc aac tgg aag cag   48
Thr Tyr Ile Pro Ser Arg Ala Val Ser Leu Phe Phe Asn Trp Lys Gln
1          5          10          15

gaa ttc agg act ctg gag gtc aca ctc cgg gat ttc agc aag ttg aat   96
Glu Phe Arg Thr Leu Glu Val Thr Leu Arg Asp Phe Ser Lys Leu Asn
20          25          30

aag caa gat atc aga tat ctg ggg aaa ata ttc agc tct gcc aca agc   144
Lys Gln Asp Ile Arg Tyr Leu Gly Lys Ile Phe Ser Ser Ala Thr Ser
35          40          45

ctc agg ctg caa ata aag aga                                     165

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0986494.052301

Leu Arg Leu Gln Ile Lys Arg
50 55

<210> 184
<211> 55
<212> PRT
<213> Homo sapiens

<400> 184
Thr Tyr Ile Pro Ser Arg Ala Val Ser Leu Phe Phe Asn Trp Lys Gln
1 5 10 15
Glu Phe Arg Thr Leu Glu Val Thr Leu Arg Asp Phe Ser Lys Leu Asn
20 25 30
Lys Gln Asp Ile Arg Tyr Leu Gly Lys Ile Phe Ser Ser Ala Thr Ser
35 40 45
Leu Arg Leu Gln Ile Lys Arg
50 55

<210> 185
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 185
gaaatgtgct cgcaggagg 19

<210> 186
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 186
gatgagcttc tgacaggccc 20

<210> 187
<211> 3063
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(2385)

<221> CDS
<222> (2389)...(2928)

0586494 "0586494"

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Ser Arg Phe Leu Ser Thr Tyr Asp Gly Ala Glu Thr Leu Cys Leu Glu	
210 215 220	
gac ata tac aca gag aat gtc ctg gag gtc tgg gca gat gtg ggc atg	720
Asp Ile Tyr Thr Glu Asn Val Leu Glu Val Trp Ala Asp Val Gly Met	
225 230 235 240	
gct gga ccc ccg cag aag agc cca gcc acc ctg ggc ctg gag gag ctc	768
Ala Gly Pro Pro Gln Lys Ser Pro Ala Thr Leu Gly Leu Glu Glu Leu	
245 250 255	
ttc agc acc cct ggc cac ctc aat gac gat gcg gac act gtg ctg gtg	816
Phe Ser Thr Pro Gly His Leu Asn Asp Asp Ala Asp Thr Val Leu Val	
260 265 270	
gtg ggt gag gcg ggc agt ggc aag agc acg ctc ctg cag cgg ctg cac	864
Val Gly Glu Ala Gly Ser Gly Lys Ser Thr Leu Leu Gln Arg Leu His	
275 280 285	
ttg ctg tgg gct gca ggg caa gac ttc cag gaa ttt ctc ttt gtc ttc	912
Leu Leu Trp Ala Ala Gly Gln Asp Phe Gln Glu Phe Leu Phe Val Phe	
290 295 300	
cca ttc agc tgc cgg cag ctg cag tgc atg gcc aaa cca ctc tct gtg	960
Pro Phe Ser Cys Arg Gln Leu Gln Cys Met Ala Lys Pro Leu Ser Val	
305 310 315 320	
cgg act cta ctc ttt gag cac tgc tgt tgg cct gat gtt ggt caa gaa	1008
Arg Thr Leu Leu Phe Glu His Cys Cys Trp Pro Asp Val Gly Gln Glu	
325 330 335	
gac atc ttc cag tta ctc ctt gac cac cct gac cgt gtc ctg tta acc	1056
Asp Ile Phe Gln Leu Leu Leu Asp His Pro Asp Arg Val Leu Leu Thr	
340 345 350	
ttt gat ggc ttt gac gag ttc aag ttc agg ttc acg gat cgt gaa cgc	1104
Phe Asp Gly Phe Asp Glu Phe Lys Phe Arg Phe Thr Asp Arg Glu Arg	
355 360 365	
cac tgc tcc ccg acc gac ccc acc tct gtc cag acc ctg ctc ttc aac	1152
His Cys Ser Pro Thr Asp Pro Thr Ser Val Gln Thr Leu Leu Phe Asn	
370 375 380	
ctt ctg cag ggc aac ctg ctg aag aat gcc cgc aag gtg gtg acc agc	1200
Leu Leu Gln Gly Asn Leu Leu Lys Asn Ala Arg Lys Val Val Thr Ser	
385 390 395 400	
cgt ccg gcc gct gtg tcg gcg ttc ctc agg aag tac atc cgc acc gag	1248
Arg Pro Ala Ala Val Ser Ala Phe Leu Arg Lys Tyr Ile Arg Thr Glu	
405 410 415	

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ttc	aac	ctc	aag	ggc	ttc	tct	gaa	cag	ggc	atc	gag	ctg	tac	ctg	agg	1296
Phe	Asn	Leu	Lys	Gly	Phe	Ser	Glu	Gln	Gly	Ile	Glu	Leu	Tyr	Leu	Arg	
			420					425					430			
aag	cgc	cat	cat	gag	ccc	ggg	gtg	gcg	gac	cgc	ctc	atc	cgc	ctg	ctc	1344
Lys	Arg	His	His	Glu	Pro	Gly	Val	Ala	Asp	Arg	Leu	Ile	Arg	Leu	Leu	
			435				440					445				
caa	gag	acc	tca	gcc	ctg	cac	ggt	ttg	tgc	cac	ctg	cct	gtc	ttc	tca	1392
Gln	Glu	Thr	Ser	Ala	Leu	His	Gly	Leu	Cys	His	Leu	Pro	Val	Phe	Ser	
							455					460				
tgg	atg	gtg	tcc	aaa	tgc	cac	cag	gaa	ctg	ttg	ctg	cag	gag	ggg	ggg	1440
Trp	Met	Val	Ser	Lys	Cys	His	Gln	Glu	Leu	Leu	Leu	Gln	Glu	Gly	Gly	
465							470					475			480	
tcc	cca	aag	acc	act	aca	gat	atg	tac	ctg	ctg	att	ctg	cag	cat	ttt	1488
Ser	Pro	Lys	Thr	Thr	Thr	Asp	Met	Tyr	Leu	Leu	Ile	Leu	Gln	His	Phe	
									490						495	
ctg	ctg	cat	gcc	acc	ccc	cca	gac	tca	gct	tcc	caa	ggt	ctg	gga	ccc	1536
Leu	Leu	His	Ala	Thr	Pro	Pro	Asp	Ser	Ala	Ser	Gln	Gly	Leu	Gly	Pro	
								505					510			
agt	ctt	ctt	cgg	ggc	cgc	ctc	ccc	acc	ctc	ctg	cac	ctg	ggc	aga	ctg	1584
Ser	Leu	Leu	Arg	Gly	Arg	Leu	Pro	Thr	Leu	Leu	His	Leu	Gly	Arg	Leu	
							520						525			
gct	ctg	tgg	ggc	ctg	ggc	atg	tgc	tgc	tac	gtg	ttc	tca	gcc	cag	cag	1632
Ala	Leu	Trp	Gly	Leu	Gly	Met	Cys	Cys	Tyr	Val	Phe	Ser	Ala	Gln	Gln	
							535					540				
ctc	cag	gca	gca	cag	gtc	agc	cct	gat	gac	att	tct	ctt	ggc	ttc	ctg	1680
Leu	Gln	Ala	Ala	Gln	Val	Ser	Pro	Asp	Asp	Ile	Ser	Leu	Gly	Phe	Leu	
545							550				555				560	
gtg	cgt	gcc	aaa	ggt	gtc	gtg	cca	ggg	agt	acg	gcg	ccc	ctg	gaa	ttc	1728
Val	Arg	Ala	Lys	Gly	Val	Val	Pro	Gly	Ser	Thr	Ala	Pro	Leu	Glu	Phe	
							565				570				575	
ctt	cac	atc	act	ttc	cag	tgc	ttc	ttt	gcc	gcg	ttc	tac	ctg	gca	ctc	1776
Leu	His	Ile	Thr	Phe	Gln	Cys	Phe	Phe	Ala	Ala	Phe	Tyr	Leu	Ala	Leu	
									585				590			
agt	gct	gat	gtg	cca	cca	gct	ttg	ctc	aga	cac	ctc	ttc	aat	tgt	ggc	1824
Ser	Ala	Asp	Val	Pro	Pro	Ala	Leu	Leu	Arg	His	Leu	Phe	Asn	Cys	Gly	
							600						605			
agg	cca	ggc	aac	tca	cca	atg	gcc	agg	ctc	ctg	ccc	acg	atg	tgc	atc	1872
Arg	Pro	Gly	Asn	Ser	Pro	Met	Ala	Arg	Leu	Leu	Pro	Thr	Met	Cys	Ile	
							610						620			
cag	gcc	tcg	gag	gga	aag	gac	agc	agc	gtg	gca	gct					

Gln Ala Ser Glu Gly Lys Asp Ser Ser Val Ala Ala Leu Leu Gln Lys	
625 630 635 640	
gcc gag ccg cac aac ctt cag atc aca gca gcc ttc ctg gca ggg ctg	1968
Ala Glu Pro His Asn Leu Gln Ile Thr Ala Ala Phe Leu Ala Gly Leu	
645 650 655	
ttg tcc cgg gag cac tgg ggc ctg ctg gct gag tgc cag aca tct gag	2016
Leu Ser Arg Glu His Trp Gly Leu Leu Ala Glu Cys Gln Thr Ser Glu	
660 665 670	
aag gcc ctg ctc cgg cgc cag gcc tgt gcc cgc tgg tgt ctg gcc cgc	2064
Lys Ala Leu Leu Arg Arg Gln Ala Cys Ala Arg Trp Cys Leu Ala Arg	
675 680 685	
agc ctc cgc aag cac ttc cac tcc atc ccg cca gct gca ccg ggt gag	2112
Ser Leu Arg Lys His Phe His Ser Ile Pro Pro Ala Ala Pro Gly Glu	
690 695 700	
gcc aag agc gtg cat gcc atg ccc ggg ttc atc tgg ctc atc cgg agc	2160
Ala Lys Ser Val His Ala Met Pro Gly Phe Ile Trp Leu Ile Arg Ser	
705 710 715 720	
ctg tac gag atg cag gag gag cgg ctg gct cgg aag gct gca cgt ggc	2208
Leu Tyr Glu Met Gln Glu Glu Arg Leu Ala Arg Lys Ala Ala Arg Gly	
725 730 735	
ctg aat gtt ggg cac ctc aag ttg aca ttt tgc agt gtg ggc ccc act	2256
Leu Asn Val Gly His Leu Lys Leu Thr Phe Cys Ser Val Gly Pro Thr	
740 745 750	
gag tgt gct gcc ctg gcc ttt gtg ctg cag cac ctc cgg cgg ccc gtg	2304
Glu Cys Ala Ala Leu Ala Phe Val Leu Gln His Leu Arg Arg Pro Val	
755 760 765	
gcc ctg cag ctg gac tac aac tct gtg ggt gac att ggc gtg gag cag	2352
Ala Leu Gln Leu Asp Tyr Asn Ser Val Gly Asp Ile Gly Val Glu Gln	
770 775 780	
ctg ctg cct tgc ctt ggt gtc tgc aag gct ctg taa ttc tgg ggc aac	2400
Leu Leu Pro Cys Leu Gly Val Cys Lys Ala Leu Phe Trp Gly Asn	
785 790 795	
aga gtg ggt gac gag ggg gcc cag gcc ctg gct gaa gcc ttg ggt gat	2448
Arg Val Gly Asp Glu Gly Ala Gln Ala Leu Ala Glu Ala Leu Gly Asp	
800 805 810 815	
cac cag agc ttg agg tgg ctc agc ctg gtg ggg aac aac att ggc agt	2496
His Gln Ser Leu Arg Trp Leu Ser Leu Val Gly Asn Asn Ile Gly Ser	
820 825 830	
gtg ggt gcc caa gcc ttg gca ctg atg ctg gca aag aac gtc atg cta	2544
Val Gly Ala Gln Ala Leu Ala Leu Met Leu Ala Lys Asn Val Met Leu	

09864924-052301

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<210> 188
<211> 795
<212> PRT
<213> Homo sapiens
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Cys 1	Glu	Met	Cys	Ser 5	Gln	Glu	Ala	Phe	Gln 10	Ala	Gln	Arg	Ser	Gln 15	Leu
Val	Glu	Leu	Leu	Val	Ser	Gly	Ser	Leu	Glu	Gly	Phe	Glu	Ser	Val	Leu
Asp	Trp	Leu	Leu	Ser	Trp	Glu	Val	Leu	Ser	Trp	Glu	Asp	Tyr	Glu	Gly
Phe	His	Leu	Leu	Gly	Gln	Pro	Leu	Ser	His	Leu	Ala	Arg	Arg	Leu	Leu
Asp	Thr	Val	Trp	Asn	Lys	Gly	Thr	Trp	Ala	Cys	Gln	Lys	Leu	Ile	Ala

65					70					75					80
Ala	Ala	Gln	Glu	Ala	Gln	Ala	Asp	Ser	Gln	Ser	Pro	Lys	Leu	His	Gly
				85					90					95	
Cys	Trp	Asp	Pro	His	Ser	Leu	His	Pro	Ala	Arg	Asp	Leu	Gln	Ser	His
			100					105					110		
Arg	Pro	Ala	Ile	Val	Arg	Arg	Leu	His	Ser	His	Val	Glu	Asn	Met	Leu
			115					120				125			
Asp	Leu	Ala	Trp	Glu	Arg	Gly	Phe	Val	Ser	Gln	Tyr	Glu	Cys	Asp	Glu
	130					135					140				
Ile	Arg	Leu	Pro	Ile	Phe	Thr	Pro	Ser	Gln	Arg	Ala	Arg	Arg	Leu	Leu
145					150					155					160
Asp	Leu	Ala	Thr	Val	Lys	Ala	Asn	Gly	Leu	Ala	Ala	Phe	Leu	Leu	Gln
				165					170					175	
His	Val	Gln	Glu	Leu	Pro	Val	Pro	Leu	Ala	Leu	Pro	Leu	Glu	Ala	Ala
			180					185					190		
Thr	Cys	Lys	Lys	Tyr	Met	Ala	Lys	Leu	Arg	Thr	Thr	Val	Ser	Ala	Gln
		195					200					205			
Ser	Arg	Phe	Leu	Ser	Thr	Tyr	Asp	Gly	Ala	Glu	Thr	Leu	Cys	Leu	Glu
	210					215					220				
Asp	Ile	Tyr	Thr	Glu	Asn	Val	Leu	Glu	Val	Trp	Ala	Asp	Val	Gly	Met
225					230					235					240
Ala	Gly	Pro	Pro	Gln	Lys	Ser	Pro	Ala	Thr	Leu	Gly	Leu	Glu	Glu	Leu
				245						250				255	
Phe	Ser	Thr	Pro	Gly	His	Leu	Asn	Asp	Ala	Asp	Thr	Val	Leu	Val	
			260					265				270			
Val	Gly	Glu	Ala	Gly	Ser	Gly	Lys	Ser	Thr	Leu	Leu	Gln	Arg	Leu	His
		275					280					285			
Leu	Leu	Trp	Ala	Ala	Gly	Gln	Asp	Phe	Gln	Glu	Phe	Leu	Phe	Val	Phe
	290					295					300				
Pro	Phe	Ser	Cys	Arg	Gln	Leu	Gln	Cys	Met	Ala	Lys	Pro	Leu	Ser	Val
305					310					315					320
Arg	Thr	Leu	Leu	Phe	Glu	His	Cys	Cys	Trp	Pro	Asp	Val	Gly	Gln	Glu
				325					330					335	
Asp	Ile	Phe	Gln	Leu	Leu	Leu	Asp	His	Pro	Asp	Arg	Val	Leu	Leu	Thr
			340					345					350		
Phe	Asp	Gly	Phe	Asp	Glu	Phe	Lys	Phe	Arg	Phe	Thr	Asp	Arg	Glu	Arg
		355					360					365			
His	Cys	Ser	Pro	Thr	Asp	Pro	Thr	Ser	Val	Gln	Thr	Leu	Leu	Phe	Asn
	370					375					380				
Leu	Leu	Gln	Gly	Asn	Leu	Leu	Lys	Asn	Ala	Arg	Lys	Val	Val	Thr	Ser
385					390					395					400
Arg	Pro	Ala	Ala	Val	Ser	Ala	Phe	Leu	Arg	Lys	Tyr	Ile	Arg	Thr	Glu
				405					410					415	
Phe	Asn	Leu	Lys	Gly	Phe	Ser	Glu	Gln	Gly	Ile	Glu	Leu	Tyr	Leu	Arg
			420					425					430		
Lys	Arg	His	His	Glu	Pro	Gly	Val	Ala	Asp	Arg	Leu	Ile	Arg	Leu	Leu
		435					440					445			
Gln	Glu	Thr	Ser	Ala	Leu	His	Gly	Leu	Cys	His	Leu	Pro	Val	Phe	Ser
	450					455						460			
Trp	Met	Val	Ser	Lys	Cys	His	Gln	Glu	Leu	Leu	Leu	Gln	Glu	Gly	Gly
465					470					475					480
Ser	Pro	Lys	Thr	Thr	Thr	Asp	Met	Tyr	Leu	Leu	Ile	Leu	Gln	His	Phe
				485					490					495	

09064921.052304

Leu Leu His Ala Thr Pro Pro Asp Ser Ala Ser Gln Gly Leu Gly Pro
500 505 510
Ser Leu Leu Arg Gly Arg Leu Pro Thr Leu Leu His Leu Gly Arg Leu
515 520 525
Ala Leu Trp Gly Leu Gly Met Cys Cys Tyr Val Phe Ser Ala Gln Gln
530 535 540
Leu Gln Ala Ala Gln Val Ser Pro Asp Asp Ile Ser Leu Gly Phe Leu
545 550 555 560
Val Arg Ala Lys Gly Val Val Pro Gly Ser Thr Ala Pro Leu Glu Phe
565 570 575
Leu His Ile Thr Phe Gln Cys Phe Phe Ala Ala Phe Tyr Leu Ala Leu
580 585 590
Ser Ala Asp Val Pro Pro Ala Leu Leu Arg His Leu Phe Asn Cys Gly
595 600 605
Arg Pro Gly Asn Ser Pro Met Ala Arg Leu Leu Pro Thr Met Cys Ile
610 615 620
Gln Ala Ser Glu Gly Lys Asp Ser Ser Val Ala Ala Leu Leu Gln Lys
625 630 635 640
Ala Glu Pro His Asn Leu Gln Ile Thr Ala Ala Phe Leu Ala Gly Leu
645 650 655
Leu Ser Arg Glu His Trp Gly Leu Leu Ala Glu Cys Gln Thr Ser Glu
660 665 670
Lys Ala Leu Leu Arg Arg Gln Ala Cys Ala Arg Trp Cys Leu Ala Arg
675 680 685
Ser Leu Arg Lys His Phe His Ser Ile Pro Pro Ala Ala Pro Gly Glu
690 695 700
Ala Lys Ser Val His Ala Met Pro Gly Phe Ile Trp Leu Ile Arg Ser
705 710 715 720
Leu Tyr Glu Met Gln Glu Glu Arg Leu Ala Arg Lys Ala Ala Arg Gly
725 730 735
Leu Asn Val Gly His Leu Lys Leu Thr Phe Cys Ser Val Gly Pro Thr
740 745 750
Glu Cys Ala Ala Leu Ala Phe Val Leu Gln His Leu Arg Arg Pro Val
755 760 765
Ala Leu Gln Leu Asp Tyr Asn Ser Val Gly Asp Ile Gly Val Glu Gln
770 775 780
Leu Leu Pro Cys Leu Gly Val Cys Lys Ala Leu
785 790 795

<210> 189
<211> 180
<212> PRT
<213> Homo sapiens

<400> 189
Phe Trp Gly Asn Arg Val Gly Asp Glu Gly Ala Gln Ala Leu Ala Glu
1 5 10 15
Ala Leu Gly Asp His Gln Ser Leu Arg Trp Leu Ser Leu Val Gly Asn
20 25 30
Asn Ile Gly Ser Val Gly Ala Gln Ala Leu Ala Leu Met Leu Ala Lys
35 40 45
Asn Val Met Leu Glu Glu Leu Cys Leu Glu Glu Asn His Leu Gln Asp

FOE001-050-12649850

50		55		60
Glu Gly Val Cys Ser Leu Ala Glu Gly Leu Lys Lys Asn Ser Ser Leu				
65		70		80
Lys Ile Leu Asn Ile Lys Ile His Ala Ser Gly Phe Asn Lys Leu Leu				
	85		90	95
Glu Ser Ile Phe Cys Ile Leu Leu Val Val Glu Ala Phe Phe Leu Gln				
	100		105	110
Lys Val Val Lys Ile Leu Glu Glu Met Val Val Ser Trp Leu Glu Val				
	115		120	125
Arg Leu Ser Asn Asn Cys Ile Thr Tyr Leu Gly Ala Glu Ala Leu Leu				
	130		135	140
Gln Ala Leu Glu Arg Asn Asp Thr Ile Leu Glu Val Trp Leu Arg Gly				
	145		150	155
Asn Thr Phe Ser Leu Glu Glu Val Asp Lys Leu Gly Cys Arg Asp Thr				
	165		170	175
Arg Leu Leu Leu				
	180			

<210> 190
 <211> 721
 <212> DNA
 <213> Mus musculus

<220>
 <221> CDS
 <222> (193)...(612)

<400> 190
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 gctgacacat cggtggcctc tctcaagcac cttttcagct gtggccggct gggcagctca 120
 ctgctgggaa ggctgctgcc caacctgtgt atccagggct ccagagtcaa gaagggcagc 180
 gaagcagccc tg ctg cag aag gct gag cca cac aac ctg caa atc aca gca 231
 Leu Gln Lys Ala Glu Pro His Asn Leu Gln Ile Thr Ala

1 5 10

gcc ttc cta gca ggt ctg ttg tcc cag cag cat cgg gac ctg ttg gct 279
 Ala Phe Leu Ala Gly Leu Leu Ser Gln Gln His Arg Asp Leu Leu Ala
 15 20 25

gca tgc cag gtc tcc gag agg gta ctg ctc cag cgt cag gca cgt gcc 327
 Ala Cys Gln Val Ser Glu Arg Val Leu Leu Gln Arg Gln Ala Arg Ala
 30 35 40 45

cgc tcg tgt ctg gcc cac agc ctc cgc gag cac ttc cat tcc atc ccg 375
 Arg Ser Cys Leu Ala His Ser Leu Arg Glu His Phe His Ser Ile Pro
 50 55 60

cct gcc gtg ccc ggt gag acc aag agc atg cat gct atg ccg ggc ttc 423
 Pro Ala Val Pro Gly Glu Thr Lys Ser Met His Ala Met Pro Gly Phe
 65 70 75

att tgg ctc atc cgt agc ctg tac gag atg cag gag gag cag ttg gcc 471

09364934-053304

Ile Trp Leu Ile Arg Ser Leu Tyr Glu Met Gln Glu Glu Gln Leu Ala
80 85 90

cag gag gct gtc cgt cgc ttg gac atc ggg cac ctg aag ttg aca ttt 519
Gln Glu Ala Val Arg Arg Leu Asp Ile Gly His Leu Lys Leu Thr Phe
95 100 105

tgc aga gtg ggc cct gca gag tgt gct gca ctg gcc ttt gta ctg caa 567
Cys Arg Val Gly Pro Ala Glu Cys Ala Ala Leu Ala Phe Val Leu Gln
110 115 120 125

cat ctc cag cgg cct gtg gcc cta cag ctg gat tac aac tct gtg 612
His Leu Gln Arg Pro Val Ala Leu Gln Leu Asp Tyr Asn Ser Val
130 135 140

ggagatgttg ggagtggaaac agctgacgacc gtgccttttg ggtctgcaca gctctgtagt 672
gagtgtgaca aggtcttgcc gattgggcct gtggcaaata ctactgtca 721

<210> 191
<211> 140
<212> PRT
<213> Mus musculus

<400> 191
Leu Gln Lys Ala Glu Pro His Asn Leu Gln Ile Thr Ala Ala Phe Leu
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Ala Gly Leu Leu Ser Gln Gln His Arg Asp Leu Leu Ala Ala Cys Gln
20 25 30
Val Ser Glu Arg Val Leu Leu Gln Arg Gln Ala Arg Ala Arg Ser Cys
35 40 45
Leu Ala His Ser Leu Arg Glu His Phe His Ser Ile Pro Pro Ala Val
50 55 60
Pro Gly Glu Thr Lys Ser Met His Ala Met Pro Gly Phe Ile Trp Leu
65 70 75 80
Ile Arg Ser Leu Tyr Glu Met Gln Glu Glu Gln Leu Ala Gln Glu Ala
85 90 95
Val Arg Arg Leu Asp Ile Gly His Leu Lys Leu Thr Phe Cys Arg Val
100 105 110
Gly Pro Ala Glu Cys Ala Ala Leu Ala Phe Val Leu Gln His Leu Gln
115 120 125
Arg Pro Val Ala Leu Gln Leu Asp Tyr Asn Ser Val
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[illegible]

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Ala Gly Leu  Leu Ser  Gln  Gln  His  Arg Asp  Leu  Leu  Ala  Ala  Cys  Gln
              20              25              30
Ile Ser Glu  Arg Val  Leu Leu  Gln  Arg  Gln  Ala  Arg  Ala  Arg  Ser  Cys
              35              40              45
Leu Ala His  Ser Leu  Arg  Glu  His  Phe  His  Ser  Ile  Pro  Pro  Ala  Val
              50              55              60
Pro Gly Glu  Thr Lys  Ser Met  His  Ala Met  Pro Gly  Phe  Ile Trp  Leu

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65		70		75		80									
Ile	Arg	Ser	Leu	Tyr	Glu	Met	Gln	Glu	Glu	Gln	Leu	Ala	Gln	Glu	Ala
			85					90					95		
Val	Arg	Arg	Leu	Asp	Ile	Gly	His	Leu	Lys	Leu	Thr	Phe	Cys	Arg	Val
		100						105					110		
Gly	Pro	Ala	Glu	Cys	Ala	Ala	Leu	Ala	Phe	Val	Leu	Gln	His	Leu	Gln
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TOECSO TCSHSD